

Remarks/Arguments

This paper is filed in response to the Office Action dated as mailed January 14, 2010. Claims 1-25 are pending at the time of filing this Amendment, and new claims 26 and 27 have been added, resulting in claims 1-27 being pending. Claim 1 is amended.

Claim 1 has been amended to recite certain structural elements.

Claim Rejections – 35 USC § 103

Claims 1-25 were rejected under 35 U.S.C. § 103(a) as being unpatentable over U.S. Patent No. 6,578,837 to Blank et al. in view of U.S. Patent No. 6,474,632 to Liou (Liou I), U.S. Patent No. 6,655,670 to Liou (Liou II) in view of Liou I, and International Publication No. WO 03/013793 to American Tool Companies, Inc. in view of Liou I.

The Examiner asserted that the primary references all disclosed a clamping and spreading tool having a stationary jaw, movable jaw, pull rod, gearing spring, centering spring, slide mechanism, and a lock. The Examiner also asserted that “[i]n regard to the force dissipating mechanism this is merely the structure of the invention because the locks, gears, cants, will all perform these recited functions.” Applicant respectfully disagrees with this assertion, with detailed explanation set forth in Applicant’s previous response.

Applicants’ amended independent claim 1 recites as the final element:

a force dissipating mechanism for dissipating the clamping or spreading forces stored that allows absorption displacement of the push or pull rod in the opening direction along a predetermined absorption path and blocks absorption displacement of the push or pull rod in the opening direction beyond the predetermined absorption path upon release of the lock, said force dissipating

mechanism including a release lever to release the lock and an entraining slide element to block the absorption displacement of the push or pull rod in the opening direction beyond the predetermined absorption path upon release of the lock.

The predetermined absorption path is a distance that corresponds to the distance the push or pull rod is allowed to travel when the lock is released and before the rod is stopped from further movement.

As set forth in detail in Applicant's prior office action response, none of the cited references discloses a force dissipating mechanism that (1) allows push or pull rod displacement in the open direction along a predetermined absorption path that has a set end point and (2) blocks further displacement of the push or pull rod beyond the predetermined absorption path. What this also means is that none of the cited references discloses any mechanism that allows just a small movement of the push or pull rod to release force exerted on the object being clamped, preventing what might be an explosive propulsion of the rod.

Further, none of the cited references discloses the newly added limitation of an entraining slide element to block the absorption displacement of the push or pull rod in the opening direction beyond the predetermined absorption path upon release of the lock. The Examiner noted in the Response to Arguments of the current Office Action that structure is lacking from the claim; Applicant has added such structure to claim 1, although Applicant believes that the recited functional language serves to precisely define present structural attributes and should be given patentable weight. MPEP 2173.05(g) discusses functional language as follows:

A functional limitation must be evaluated and considered, just like any other limitation of the claim, for what it fairly conveys to a person of ordinary skill in the pertinent art in the context in which it is used. A functional limitation is often used in association with an element, ingredient, or step of a process to define a particular capability or purpose

that is served by the recited element, ingredient or step.

. . . .

In a claim that was directed to a kit of component parts capable of being assembled, the Court held that limitations such as “members adapted to be positioned” and “portions . . . being resiliently dilatable whereby said housing may be slidably positioned” serve to precisely define present structural attributes of interrelated component parts of the claimed assembly. *In re Venezia*, 530 F.2d 956, 189 USPQ 149 (CCPA 1976).

Claims 2-25 depend either directly or indirectly from allowable, amended claim 1, and are therefore allowable for the same reasons. In addition, claims 2-25 recite features and combinations of features not taught or suggested by the cited art and are also therefore allowable for that reason.

New Claims

Claims 26 and 27 are new, include features not found in the cited art, and are therefore allowable.

Conclusion


In summary, it is submitted that all claims are allowable and that the application is in condition for allowance. If the Examiner has any questions about the present Amendment a telephone interview is requested. If necessary, please charge any additional fees or credit overpayment to Deposit Account No. 13-4365.

Respectfully submitted,

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(Applicants)

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